WORK PERMIT # _____ w/ 828801 HP

ILR / Work Order # 382-386 **Dept.** LC. **Construction Job #** _____ **Tracking #** _____ **Account #** 89195

1. Work requester fills out this section

Requester: Collins, J Date: 10-14-98 Dept/Div/Group: PHENIX

Other Contact person (if different from requester): _____ Phone No. 7777

Start Date 10-15-98 Estimated End Date 10-15-98

Description of Work / Problem: REPLACE TRANSITION PLATES & PIVOTS ON RICH VESSEL.

Building 832 Room HIGH BAY Equipment _____

2. Work requester, work provider, and ES&H (as necessary) jointly fill out this section or attach applicable hazard analysis

Hazard Analysis

RADIATION CONCERNS

[X] NONE [ ] Activation [ ] Airborne [ ] Contamination [ ] Radiation [ ] OTHER _____

[ ] Special nuclear materials involved (ES&H 3.7.0), notify Group Leader, Isotope Special Materials Group (SSD)

[ ] Fissionable materials involved (ES&H 3.7.0), notify Laboratory Criticality Officer (DAT)

SAFETY CONCERNS

[ ] NONE	[ ] Corrosive	[ ] Flammable	[X] Material Handling	[ ] Rigging/Critical Lift
[ ] Asbestos	[ ] Cryogenic	[ ] Fumes/Mist/Dust	[ ] Noise	[ ] Toxic
[ ] Biohazard	[ ] Electrical	[ ] Heat/Cold Stress	[ ] Non-ionizing Radiation	[ ] Vacuum
[ ] Chemicals	[ ] Elevated Work	[ ] Hydraulic	[ ] Oxygen Deficiency	[ ] OTHER _____
[ ] Confined Space	[ ] Excavation	[ ] Lasers	[ ] Penetrating Fire Wall	
[ ] Adding / Removing Walls or Roofs		[ ] Lead	[ ] Pneumatic	

ENVIRONMENTAL CONCERNS

[X] NONE [ ] OTHER _____

[ ] Hazardous materials will be released to the air via a new/modified ventilation system, hood, or stack (ES&H 6.1.4 and 6.1.5) Notify Project Engineer, Environmental Protection Office (ES&H Services)

[ ] New hazardous materials will be released via the liquid effluent system to the sewage treatment system or an impoundment (ES&H 6.1.2) Notify Regulatory Compliance Engineer, Environmental Protection Office (ES&H Services) for permit.

Waste Generated [X] NONE [ ] Clean Waste [ ] Hazardous Waste [ ] Radioactive Waste [ ] Mixed Waste

Waste disposition by: _____

Based on analysis above, the Review Team determines the job hazard category:

JOB HAZARD CATEGORY: X MODERATE ___ HIGH

Job Safety Analysis (JSA) Required? X No ___ Yes (Please attach)

Work Controls

WORK PRACTICES

[X] NONE	[ ] Containment	[ ] IH Survey	[ ] Scaffolding - requires inspection	
[ ] Back-up Person/Watch	[ ] Exhaust Ventilation	[ ] Lockout/Tagout	[ ] Time Limitation	
[ ] Barricades	[ ] HP Coverage	[ ] Posting/Warning Signs	[ ] OTHER _____	

PROTECTIVE EQUIPMENT

[ ] NONE	[ ] Ear Plugs	[X] Gloves	[ ] Lab Coat	[X] Safety Glasses	
[ ] Coveralls	[ ] Ear Muffs	[ ] Goggles	[ ] Respirator	[ ] Safety Harness	
[ ] Disposable Clothing	[ ] Face Shield	[X] Hard Hat	[ ] Rubbers	[ ] Safety Shoes	[ ] OTHER _____

PERMITS REQUIRED

Initial next to box to show who has responsibility to generate the permit

[ ] Confined Space Entry (ES&H 2.2.4)	[ ] Digging/Core Drilling(ES&H 1.18.0)	[ ] Impair Fire Protection Sys. (ES&H 4.2.0)
[ ] Cutting/Welding (ES&H 4.3.0)	[ ] Electrical Working Hot (ES&H 1.5.0)	[ ] Rad Work Permit (BNL RadCon Manual)
[ ] Dept/Div Specific Permit _____	[ ] Dept/Div Specific Permit _____	

DOSIMETRY/ MONITORING

[X] NONE	[ ] O_2/Combustible Gas	[ ] Self-reading Dosimeter	
[ ] Heat Stress Monitor	[ ] Passive Vapor Monitor	[ ] Sorbent Tube/Filter Pump	
[ ] Noise Survey/Dosimeter	[ ] Real Time Monitor	[ ] TLD	[ ] OTHER _____

Training Requirements (List below any location specific training requirements)

3. Both work requester and work provider coordinate on work plan (use attachments for detailed plans)

Work Plan (procedures, timing, personnel, etc.):

1- SKILL OF CRAFT. - (VESSEL LIFTED & MOVED BY RIGGERS)
2- FOLLOW ATTACHED STEPS
3- PROVIDE BLOCKING AS NEEDED

Special Working Conditions Required:

Operational Limits Imposed:

Post Work Testing Required:

Reviewed By: **Note: Primary facility reviewer will dictate the other required signatures*

Title	Name (print)	Signature	Life #	Date
Primary Reviewer	COLLINS, J		14795	10-14-98
ES&H Services	KANE, S		19894	10/14/98
Other *	O'MALLEY, J		21336	10-14-98

4. Job site personnel fills out this section

Note: Signature indicates personnel performing work have read and understand the hazards and permit requirements

Job Site Supervisor O'MALLEY, JAMES

Contractor Supervisor

Workers:	Life #	Workers:	Life #

5. Work Requester or designee fills out this section

Conditions are Appropriate to Start Work: (Work permit has been reviewed, work controls are in place, and site is ready for job.)

Name COLLINS, J Signature Life # 14795 Date 10-14-98

6. Work Requester determines if Post Job Review is required

____YES X NO

Post Job Review by ES&H Coordinator: Life #: Date:

	Name	Initial		
Other Closeout Signatures (as necessary):			Life #:	Date:
Other Closeout Signatures (as necessary):			Life #:	Date:

7. Worker provides feedback

Worker Feedback:

Supervisor: Is worker feedback required on this job? ____NO ____YES (attach feedback form)

Worker: Any feedback on safety concerns or on ways to improve the job? ____NO ____YES (ask for form if not attached)

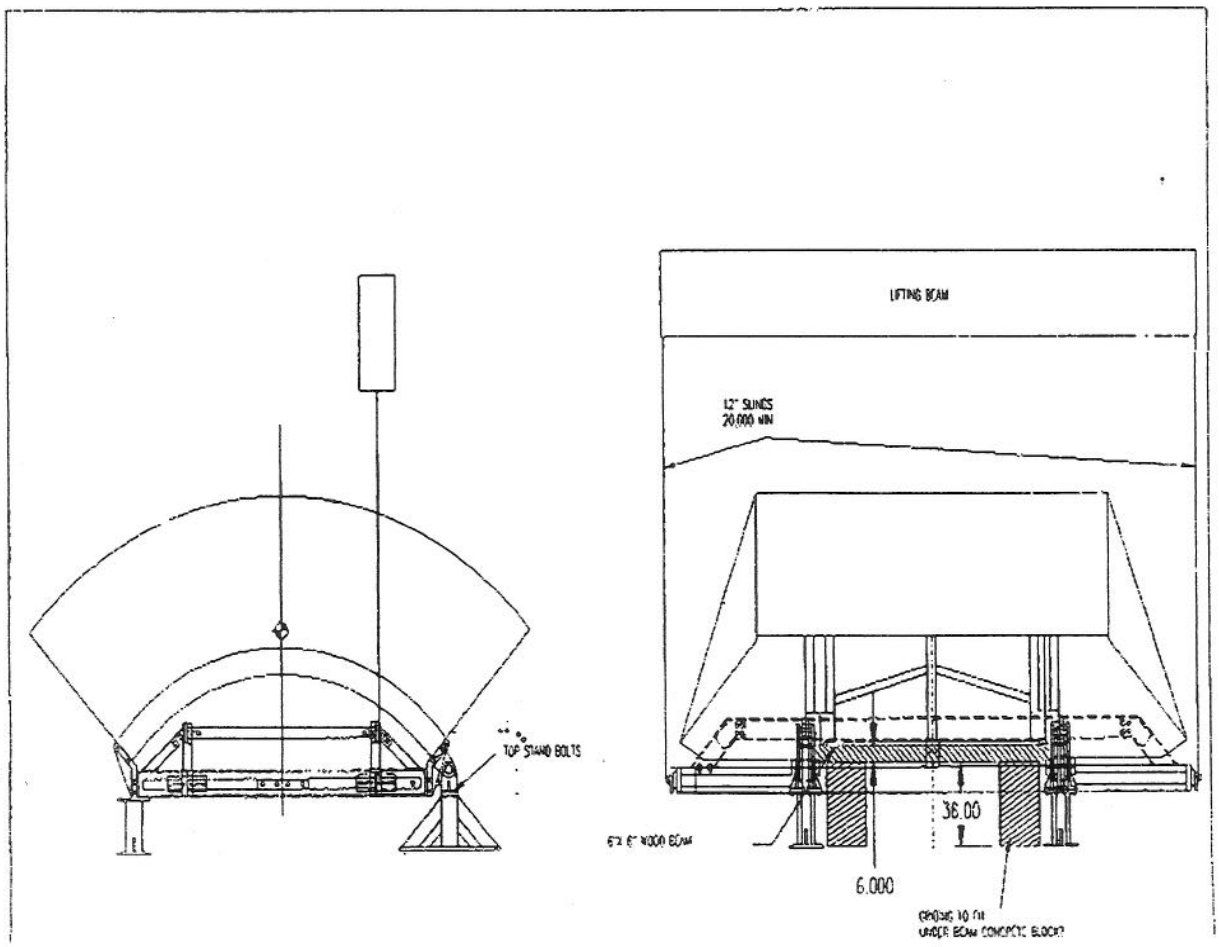
Transition Plate Change from FSU Pivot to BNL Pivot

1. Shackle the lift beam to the crane with four equal length slings attached.
2. Move the crane into position above vessel and attach slings to lifting frame.
3. Undo the top (pivot end) stand bolts.
4. Lift vessel with crane about ½".
5. Install blocking under the pivot end of the vessel, leaving about 1/32" extra clearance.
6. Install blocking under the pivot end of the lift fixture.
7. Install blocking under the lift fixture at the non-pivot end of the vessel.
8. Lower crane. Vessel and lift fixture weight is now entirely supported by blocking under lift fixture.
9. Remove the top (pivot end) stands.
10. Place a jack under the corner of the vessel at which the first pivot is to be changed. This will be used to make minute adjustments to the relative height of lift fixture and vessel when removing bolts. The vessel will flex sufficiently to allow small adjustments to one corner at a time.
11. Remove the 1"-8 bolts from the the lifting fixture end of the transition plate.
12. Remove the 1"-8 bolts from the 1"-8 bolts from the vessel end of the transition plate and lift the transition plate away from the vessel.
13. Install the new pivot. Check that the distance between the two pivot centers is 118.5".
14. Bolt the new transition plate to the lifting fixture, leaving the bolts slightly loose.
15. Line up the holes in the transition plate with the holes in the pivot, and bolt them together.
16. Tighten the bolts holding the transition plate to the lifting fixture.
17. Install blocking at the appropriate height under the ends of the new pivot.
18. Repeat steps 10 through 17 for the other corner at which the pivot is to be changed.
19. The vessel is now completely reattached to the lifting fixture. Lift the vessel ½" using the crane, and remove all temporary blocking. Lower the vessel onto the blocking under the newly installed pivot, and onto the stand at the non-pivot end.

TRANSITION PLATE
CHANGE
FROM FSU PIVOT TO BNL PIVOT

1ST DRAFT
RE-WRITE

1. Shackle lift beam to crane with sings attached.
2. Move crane into position above pivot end of vessel.
3. Attach slings to lifting frame.
4. Undo top stand bolts.
5. Lift with crane till top stands are about 1/2" above stand base.
6. Install 6" beam and blocks under end of vessel.
7. Lower crane, vessel weight will now be on the beam and blocks.
8. Keep slings tight they will have the weight of frame.
9. Remove top stands.



10. Remove pivots from vessel transition plates
11. Remove 1"-8 bolts from frame end of transition plate.
12. Check crane position.
13. Remove 1"-8 bolts from vessel transition plate lift plate away from vessel.
14. Install 1008 pivot to vessel check distances between centers of pivots is 118 1/2".
15 Install trans plate on to frame leaving bolts loose line up holes on pivot, bolt to pivot.
16 Install block under pivot.
17. Lower with crane onto block.